Outbreak Management and NEDSS-Compliant Surveillance: A Discussion of the Intersections of these Functional Capacities

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Agenda

- Technology Platform
- Data Exchange
- Deployment Environment
- Surveillance Scope
- Future Intersections
- Next Steps

Technology Platform

OMS

- Windows Client
- MS-Visual Basic
- MS-SQL or MSDE DBMS
- Multi-tier architecture
- Standards-based vocabulary
- PHCDM-derived database, derived from HL7 RIM

NBS

- Web browser-based
- J2EE (JAVA) coded
- Multi-server implementation
- n-tier architecture
- Oracle or MS-SQL DBMS
- Standards-based vocabulary
- PHCDM derived database, derived from HL7 RIM
- Directory-based (LDAP)
- Windows and Unix support

Data Exchange

OMS

- MS SQL database replication
- File import in common formats (soon)
- Data export in common formats
- PHIN-compliant messaging (soon)

NBS

- NBS case notification via custom message to CDC
- HL7 v2.3..z ELR import
- PHIN-compliant messaging (soon)

CDC™

Deployment Environment

OMS

- Both single instance and distributed application model
- Off-line capacity
- Multi-tier data replication
- On-site training
- Train-the-trainer

NBS

- Single instance of the application
- Production, Testing, Training environments
- On-site training
- Train-the-trainer

Surveillance Scope - 1

OMS

- Outbreak-instance case investigation
- Single case per person
- Individual and summary reports (possible)
- Lab, treatment, morbidity, vaccinations, investigation, contact-tracing, exposure follow up, travel history, etc.
- Application-based security

NBS

- Longitudinal person-based surveillance
- Multiple cases per person
- Individual and summary reports
- Lab, treatment, morbidity, vaccination, investigation, notification support
- Robust jurisdiction and program area security
- Remote (non-public health) user access

Surveillance Scope - 2

OMS

- Infectious diseases, chemical exposure, unknown event
- Outbreak-oriented
- Data collection, form versioning
- Data import support
- Database size: thousands of records
- Full, rapid configuration
- Outbreak-specific reference tables
- Standard views, reports, graphs, etc.

NBS

- NND and non-NND conditions included
- Routine investigations and outbreak-oriented
- Data collection, form versioning
- Legacy data import support
- Database size: millions of records
- LDF/CDF/Custom Sub-form capability
- Provider and Organization reference tables
- Limited configurability

Surveillance Scope - 3

OMS

- EpiInfo bundled
- Other analysis via ODBC
- Application-level security for data export
- Dynamic object associations
- Dynamic relationship configuration
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NBS

- ODS, RDB, Datamarts
- Integrated reports (SAS)
- Secure data export
- Workflow queues provided
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Future Intersections

- Standards-based case message exchange
- Pre-population of OMS database per outbreak
- Common technology for distributable forms
- Common authoring environment for distributable forms
- Shared common services (registry, de-duplication, etc.)
- Common question & attribute library-based
- Convergence on a common “look and feel”
- Convergence on a common AVR
- Sharing on requirements & design